

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (canceled)
2. (previously amended) The method as claimed in claim 18 wherein in said step of said interface providing a connection between said terminal and said data network, said connection is associated with a predefined set of data network addresses in said data network.
3. (previously amended) The method as claimed in claim 2 in which each said valid interface telephone number has an associated predefined set of data network addresses.
4. (previously amended) The method as claimed in claim 3 further including the step of arranging a telephone network billing system to charge for access to each said valid interface telephone number at an associated pre-defined tariff.
5. (currently amended) The method as claimed in claim 18 in which, in the step of creating said interface receiving a connection through said telephone network from said terminal, said telephone network is arranged to associate said dialled interface

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telephone number with a further interface telephone number, said further interface telephone number being used to complete said connection.

6. (previously amended) The method as claimed in claim 18, further comprising the steps of:

 said interface ascertaining said terminal telephone number;

 said interface checking that said terminal telephone number is not one of one or more invalid terminal telephone numbers associated with said connection service; and

 in the event that said terminal telephone number is one of said one or more invalid terminal telephone numbers, said interface denying a connection between said terminal and said data network.

7. (previously amended) The method as claimed in claim 18, in which said interface comprises:

 data network access means connected to both said telephone network and said data network; and

 authentication means;

 said method including the steps of:

 said data network access means ascertaining said dialled interface telephone number from said telephone network;

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passing said ascertained dialled interface telephone number to said authentication means;

 said authentication means checking that said dialled interface telephone number is one of one or more valid interface telephone numbers associated with said connection service; and

 in the event that said dialled interface telephone number is one of said valid interface telephone numbers, said authentication means causing said data network access means to allocate a data network address to said terminal and to transmit said address to said terminal.

8.-12. (canceled)

13. (original) A method of providing a connection service between a terminal and a data network, said terminal being arranged to be connected to an access network and said access network being connected to said data network through an interface, said method comprising the steps of:

 in response to said terminal calling an interface access network address from a terminal access network address, said interface receiving a connection through said access network from said terminal;

 said interface ascertaining an access network connection route attribute from said access network;

said interface checking that said access network connection route attribute is one of one or more valid access network connection route attributes associated with said connection service;

in the event that said access network connection route attribute is one of said valid access network connection route attributes, said interface allocating a data network address to said terminal and transmitting said address to said terminal; and
said interface providing a connection between said terminal and said data network.

14. (canceled)

15. (previously amended) The interface as claimed in claim 20 wherein said means arranged to provide a connection between said terminal and said data network, is arranged to associate said connection with a predefined set of data network addresses in said data network.

16. (previously amended) The interface as claimed in claim 15 in which each said valid interface telephone number has an associated predefined set of data network addresses.

17. (previously amended) The interface as claimed in claim 20, further comprising:

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means arranged to ascertain said terminal telephone number;

means arranged to check that said terminal telephone number is not one of one or more invalid terminal telephone numbers associated with said connection service; and

means arranged to deny a connection between said terminal and said data network in the event that said terminal telephone number is one of said one or more invalid terminal telephone numbers.

18. (original) The method as claimed in claim 13, wherein said access network comprises a telephone network, said interface access network address comprises an interface telephone number, said terminal access network address comprises a terminal telephone number, said access network connection route attribute comprises said dialled interface telephone number and said one or more valid access network connection route attributes comprises one or more valid interface telephone numbers.

19. (original) An interface for providing a connection service between a terminal and a data network, said terminal being arranged to be connected to an access network and said access network being connected to said data network through said interface, said interface comprising:

means arranged to receive a connection through said access network from said terminal in response to said terminal calling an interface access network address from a terminal access network address;

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means arranged to ascertain an access network connection route attribute from said telephone network;

means arranged to check that said access network connection route attribute is one of one or more valid access network connection route attributes associated with said connection service;

means responsive to said checking means arranged to allocate a data network address to said terminal and transmitting said address to said terminal in the event that said access network connection route attribute is one of said valid access network connection route attributes; and

means arranged to provide a connection between said terminal and said data network.

20. (original) The interface as claimed in claim 19, wherein said access network comprises a telephone network, said interface access network address comprises an interface telephone number, said terminal access network address comprises a terminal telephone number, said access network connection route attribute comprises said dialled interface telephone number and said one or more valid access network connection route attributes comprise one or more valid interface telephone numbers.

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